



30% PLAN SUBMITTAL  
CONCEPT DESIGN

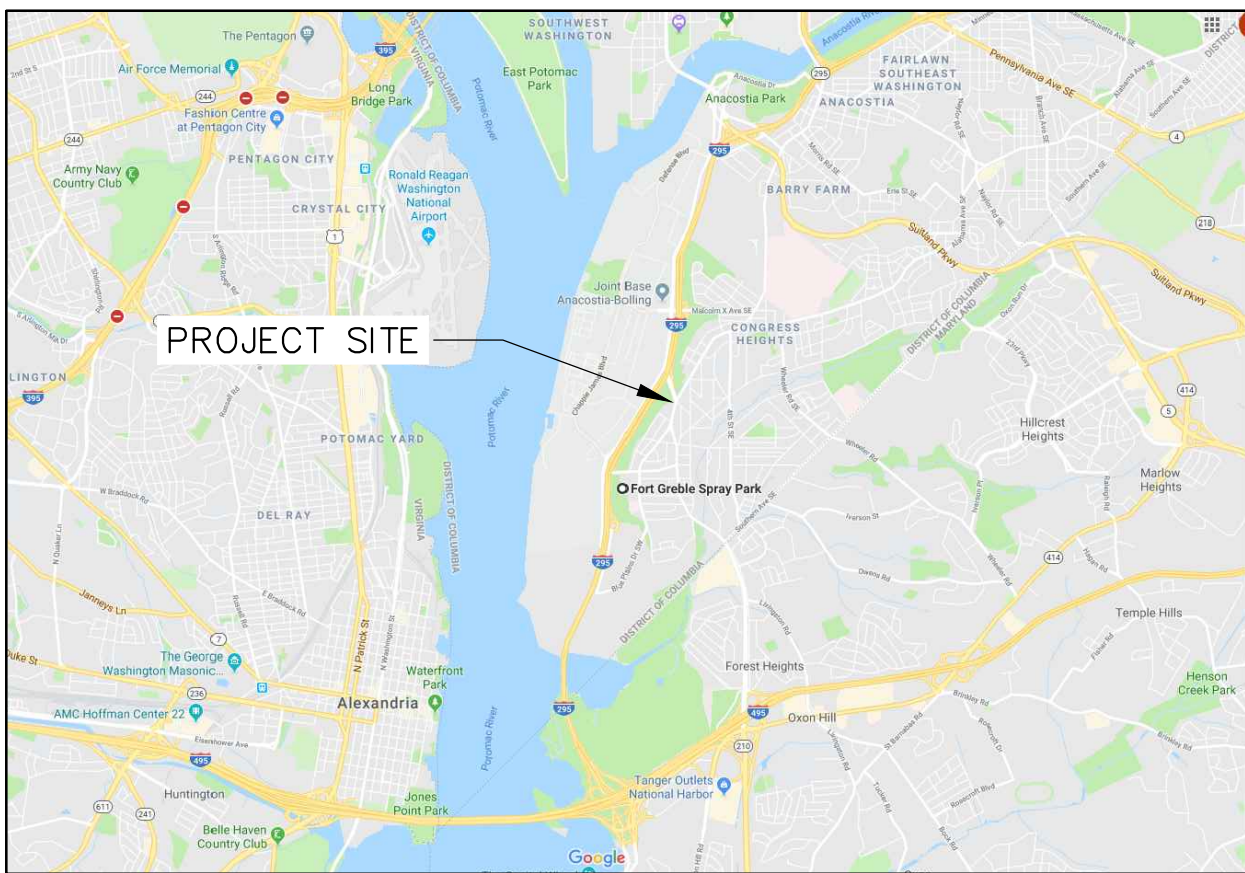
# FORT GREBLE RECREATION CENTER

## DPR II - 4 PARKS STORMWATER IMPROVEMENTS

MARTIN LUTHER KING JR. AVE.,SW  
& ELMIRA ST., SW  
DISTRICT OF COLUMBIA

SEPTEMBER 4, 2019

NRD PROJECT #193003



VICINITY MAP  
SCALE: NONE

PROJECT DESCRIPTION

THE PURPOSE OF THIS DOE-FUNDED PROJECT IS TO CONSTRUCT STORMWATER IMPROVEMENTS TO REDUCE RUNOFF AND NON-POINT POLLUTION. PROPOSED IMPROVEMENTS INCLUDE INSTALLATION OF A VEGETATIVE STORMWATER SWALE, BIORETENTION BASIN, AND ASSOCIATED SITE IMPROVEMENTS ALONG CHESAPEAKE STREET, SW.

DC PERMIT REVIEW AGENCIES

DISTRICT DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS (DCRA)  
1100 4TH STREET, SW  
WASHINGTON, DC 20024  
(202) 442-4400

DEPARTMENT OF ENERGY AND THE ENVIRONMENT  
1200 FIRST STREET, NW  
WASHINGTON, DC 20002  
(202) 535-2600

SITE ADDRESS:

SSL #:  
ZONE:  
LOT SIZE:  
DISTURBED AREA:

INTERSECTION OF  
MARTIN LUTHER KING JR. AVE., SW  
& ELMIRA ST., SW  
WASHINGTON, DC  
PAR 02520035  
RA-1  
0.9100 ACRES  
TBD

CIVIL SHEET LIST

Sheet Number	Sheet Title
C000	COVER SHEET
C001	ABBREVIATIONS AND STANDARD NOTES
C100	EXISTING CONDITIONS
C300	DRAINAGE AREA MAP
C310	STORMWATER MANAGEMENT PLAN
C330	STORMWATER DETAILS

PROJECT CONTACTS

OWNER/APPLICANT: DISTRICT OF COLUMBIA  
DEPARTMENT OF PARKS AND RECREATION  
ADDRESS: 2000 14TH ST NW  
WASHINGTON, DC 20009  
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DOEE PROJECT MANAGER: CECILIA LANE  
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WASHINGTON, DC 20003  
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Resources  
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Washington DC

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WASHINGTON DC, 20017  
202.489.6214  
www.NaturalResourcesDesign.com  
CBE# LSR80160022021

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Designed: C. SONNE  
Drawn: C. SONNE  
Checked: L. WHEELER

Date: SEPTEMBER 4, 2019  
Revisions:

COVER SHEET

C000



CONDITIONS OF PUBLIC SPACE PERMITS

PUBLIC SPACE PERMITS ARE ONLY GRANTED IN THE DISTRICT, BY THE POLICY, PLANNING AND SUSTAINABILITY ADMINISTRATION (PPSA), UNDER CERTAIN CONDITIONS.

1.

PERSONS REGULARLY PERFORMING PUBLIC SPACE EXCAVATION AND MANHOLE WORK ARE REQUIRED TO PROVIDE, ON A BIWEEKLY BASIS, PLANS SHOWING THEIR ANTICIPATED ACTIVITIES IN THE PUBLIC SPACE WITHIN THAT TWO-WEEK PERIOD.
2.

NO WORK SHALL BE UNDERTAKEN IF THE APPLICANT, OR THE PERSON ON WHOSE BEHALF THE APPLICATION IS MADE, HAS OUTSTANDING RESTORATION IN THE PUBLIC SPACE. THIS RESTRICTION WILL ALSO APPLY TO APPLICANTS WITH TEMPORARY REPAIRS THAT HAVE FAILED AND THE APPLICANT DID NOT UNDERTAKE RESTORATION WITHIN 24 HOURS OF NOTIFICATION BY THE OFFICE OF INFRASTRUCTURE OVERSIGHT (OIO).
3.

PERMANENT RESTORATIONS MUST BE COMPLETED PRIOR TO THE WINTER SUSPENSION PERIOD, WHICH IS FROM NOVEMBER 1 THROUGH MARCH 31.
4.

DC LAW 3129, UNDERGROUND FACILITIES PROTECTION ACT OF 1980, REQUIRES CONTACTING THE 'MISS UTILITY' AT (800) 257-7777 AT LEAST 48 HOURS AND NOT MORE THAN 10 DAYS (EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS) PRIOR TO THE START OF EXCAVATION. THIS IS REQUIRED SO NOTIFICATIONS CAN BE MADE TO PARTICIPATING PRIVATE UTILITY COMPANIES OF THE PROPOSED WORK.
5.

IMPROPER HOUSEKEEPING VIOLATIONS ON JOB SITES RELATING TO DIRT AND DEBRIS IN THE PUBLIC SPACE SHALL BE GROUNDS FOR A FINE OF \$500.00 PER BLOCK PER DAY AND/OR REVOCATION OF THIS PERMIT.
6.

AUTHORIZED WORK SHALL BE IN ACCORDANCE WITH THE SAFETY REQUIREMENTS FOR EXCAVATION AS OUTLINED IN THE DC DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES.
7.

WORK AUTHORIZED BY THIS PERMIT SHALL BE IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN FHWA 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' AND TRAFFIC CONTROL DEVICES MUST BE ARRANGED ACCORDING TO THE APPROVED TRAFFIC CONTROL PLANS FOR THIS PROJECT.
8.

ACCESS TO ALLEYS, DRIVEWAYS, AND ROADWAYS MUST BE MAINTAINED AT ALL TIMES. THE TRAFFIC SERVICES ADMINISTRATION AND FIRE MARSHALL MUST APPROVE ANY CLOSURES OF THE RIGHTS-OF-WAY AND THE PERMIT MUST REFLECT THIS APPROVAL.
9.

WHERE APPLICABLE, ALL INTERSECTIONS MUST BE PLATED.
10.

SIX (6) FEET OF SIDEWALK ACCESS MUST BE MAINTAINED AT ALL TIMES. THE TRAFFIC SERVICES ADMINISTRATION MUST APPROVE ANY CLOSURES OF THE RIGHTS-OF-WAY AND THE PERMIT MUST REFLECT THIS APPROVAL.
11.

THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND SALVAGING ALL COBBLESTONE PAVERS AND OTHER SPECIAL PAVERS REMOVED IN CONNECTION WITH EXCAVATION. THE CONTRACTOR MUST SECURE AND STORE MATERIALS AT CONTRACTOR'S EXPENSE AND REINSTALL ALL MATERIALS DEEMED SPECIAL OR HISTORIC AS DIRECTED BY DISTRICT ENGINEERS OR OIO.
12.

ALL STREETLIGHT AND TRAFFIC SIGNAL CABLES MUST BE SAFEGUARDED AT ALL TIMES.
13.

STORAGE OF EQUIPMENT AND/OR SUPPLIES IS PROHIBITED IN PUBLIC SPACE WITHOUT A PERMIT EXPRESSLY AUTHORIZING IT.
14.

PARKING ON NON-COMMERCIAL, PRIVATE VEHICLES IS PROHIBITED IN THE PUBLIC SPACE SUBJECT TO THE PUBLIC SPACE PERMIT.
15.

ACCESS TO ON STREET PARKING MUST BE AVAILABLE AT ALL TIMES WHEN WORK IS NOT ALLOWED.
16.

THE CONTRACTOR SHALL NOTIFY THE TRAFFIC SERVICES ADMINISTRATION PRIOR TO COMMENCEMENT OF WORK (202) 671-2700.

•

CONTRACTOR SHALL MAINTAIN TWO LANES OF TRAFFIC AT ALL TIMES

•

ADVANCE WARNING SIGNS SHALL BE 43x48 FLORESCENT ORANGE

•

WORK HOURS ARE 9:30 AM TO 3:30 PM UNLESS ALLOWED OTHERWISE BY PERMIT.
17.

THERE MUST BE NO MORE THAN 1200 FEET EXCAVATED AT ONE TIME.
18.

THE PERMIT HOLDER IS REQUIRED TO REPAIR ALL FAILED CUTS WITHIN 24 HOURS OF NOTIFICATION BY THE DISTRICT DEPARTMENT OF TRANSPORTATION, OFFICE OF INSTRUCTURE OVERSIGHT.

GENERAL PUBLIC SPACE NOTES

1.

THE DDOT INSPECTOR IS AUTHORIZED TO MODIFY CONSTRUCTION IN PUBLIC SPACE, INCLUDING TRAFFIC CONTROL PLANS. THE CONTRACTOR SHALL ACCOMMODATE THE DDOT INSPECTOR'S REQUESTS IN REGARDS TO CONSTRUCTION IN PUBLIC SPACE.
2.

ALL WORK IN PUBLIC SPACE IS SUBJECT TO A DDOT PUBLIC SPACE PERMIT AND A DDOT APPROVED TRAFFIC CONTROL PLAN.
3.

ALL EXISTING PARKING METERS, ROAD SIGNS, AND TRAFFIC CONTROL DEVICES ARE TO REMAIN MUST BE VISIBLE AT ALL TIMES OR BE RELOCATED OR REPLACED IF AFFECTED BY THE CONSTRUCTION. COORDINATE WITH THE DDOT INSPECTOR.
4.

REFER TO APPLICABLE STANDARDS AND SPECIFICATIONS FROM DC WATER, DDOT, AND DOEE AS APPROPRIATE FOR CONSTRUCTION IN PUBLIC SPACE.
5.

PUBLIC SPACE ITEMS SHOWN TO BE DEMOLISHED MAY BE REQUIRED TO BE SALVAGED PER DDOT STANDARDS. COORDINATE WITH THE DDOT INSPECTOR.

GENERAL UTILITY NOTES

1.

THE CONSTRUCTION WORK SHALL BE COMPLETED IN SUCH A WAY AS TO MINIMIZE UTILITY OUTAGES. ALL UTILITY OUTAGES MUST BE COORDINATED WITH THE UTILITY OWNER AND AFFECTED PARTIES.
2.

SOME EXISTING UTILITIES MAY NOT BE SHOWN ON THE PLANS. BEFORE BEGINNING CONSTRUCTION, VERIFY THERE ARE NO CONFLICTS WITH EXISTING UTILITIES. TEST PIT AS REQUIRED TO DETERMINE LOCATIONS AND DEPTHS OF EXISTING UTILITIES WITHIN THE CONSTRUCTION WORK AREA. IF ANY EXISTING UTILITIES ARE FOUND WHICH ARE NOT DEPICTED IN THE EXISTING CONDITIONS PLAN OR CONFLICT WITH THE PROPOSED WORK NOTIFY NATURAL RESOURCES DESIGN.
3.

NOTIFY NATURAL RESOURCES DESIGN IF COVER FOR ANY UTILITY IS REDUCED BELOW THE MINIMUM REQUIRED.
4.

THE SITE CIVIL PLAN IS MEANT TO CONVEY 'WET' (SANITARY SEWER, STORM SEWER, AND WATER) UTILITY WORK. ALL 'DRY' (ELECTRIC, NATURAL GAS, TELECOMMUNICATIONS) UTILITY WORK SHOWN IS FOR INFORMATION AND REFERENCE ONLY.
5.

REFER TO DC WATER STANDARDS FOR ABANDONMENT OF EXISTING SANITARY SEWER, STORM SEWER, AND WATER LATERALS AND MAINS. THIS INVOLVES DISCONNECTING ALL LATERALS AT THE MAINS, PLUGGING AND SEALING THE MAINS, AND REMOVING ALL ABANDONED METERS, VALVES AND APPURTENANCES. COORDINATE WORK WITH DC WATER INSPECTOR.
6.

ALL WYE CONNECTIONS TO EXISTING SEWER LATERAL LINES SHALL MATCH THE EXISTING SIZE AND MATERIAL.
7.

ALL WATER SERVICE LATER TEES SHALL BE PROVIDED WITH A VALVE AS CLOSE AS POSSIBLE TO THE MAINS. IF NECESSARY DUE TO FIELD CONDITIONS OR CONFLICTS WITH OTHER UTILITIES, AND IN COORDINATION WITH DC WATER INSPECTOR, A DIP SWIVEL TEE (AWWA C111) MAY BE USED.
8.

REFER TO DC WATER STANDARDS AND SPECIFICATIONS FOR WATER PIPE MATERIAL. ALL WATER LINES 2-INCHES DIAMETER AND SMALLER SHALL BE TYPE K COPPER. ALL WATERLINES AND FITTINGS 3-INCHES DIAMETER AND LARGER SHALL BE RESTRAINED JOINT DUCTILE IRON.
9.

BACKFLOW PREVENTION VALVES FOR ALL DOMESTIC WATER SERVICE AND FIRE SUPPRESSION LATERALS SHALL BE PROVIDED INSIDE THE BUILDINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
10.

REMOVE ABANDONED UTILITIES AS REQUIRED.
11.

ADJUST EXISTING STRUCTURE TOPS AND MANHOLES TO REMAIN WITHIN THE LIMITS OF DISTURBANCE TO MATCH FINAL GRADE AS REQUIRED. INSTALL ADDITIONAL STEPS WITHIN MANHOLES AS REQUIRED.
12.

PER DC WATER REQUIREMENTS, UTILITY AS-BUILT PLANS MUST BE SUBMITTED.
13.

REFER TO DC WATER GENERAL CONSTRUCTION NOTES, UTILITY NOTES AND UTILITY DETAILS FOR ADDITIONAL INFORMATION.

GENERAL DEMOLITION NOTES

1.

THE CONTRACTOR MUST OBTAIN A RAZE PERMIT TO DEMOLISH ANY STRUCTURE.
2.

REFER TO THE ARCHITECTURAL PLANS FOR SELECTIVE DEMOLITION RELATED TO INTERIOR RENOVATIONS. COORDINATE WITH THE DESIGN TEAM, INCLUDING THE STRUCTURAL ENGINEER, IN REGARD TO THE STABILITY OF EXISTING STRUCTURES TO REMAIN.
3.

DC WATER UTILITIES MUST BE DISCONNECTED AND ABANDONED PER DC WATER STANDARDS AND ARE SUBJECT TO DC WATER PERMITS. REFER TO UTILITY OWNERS' REQUIREMENTS AND STANDARDS TO DEMOLISH OR ABANDON UTILITIES.
4.

THE APPROXIMATE SCALE OF ABANDONMENT AND DEMOLITION OF SITE FEATURES AND UTILITIES ARE DEPICTED BOLD OR HATCHED ON THE DEMOLITION PLAN.
5.

DEMOLITION OF SITE FEATURES AND UTILITIES TO REPLACE ITEMS IN KIND ARE NOT NECESSARILY SHOWN BUT ARE WITHIN THE SCOPE OF WORK.
6.

SAWCUT EXISTING PAVEMENT TO BE REMOVED WHERE ADJACENT TO EXISTING PAVEMENT TO REMAIN. FOR CONCRETE AND GRANITE, SAWCUT AT THE NEAREST JOINT.
7.

ALL DEMOLITION DEBRIS MUST BE DISPOSED PER APPLICABLE LAW; DEMOLITION DEBRIS MAY ONLY BE USED FOR BACKFILL IF EXPRESS KNOWLEDGE AND PERMISSION IS GRANTED FROM THE STRUCTURAL AND GEOTECHNICAL ENGINEERS.
8.

REFER TO THE DEMOLITION NOTES AND DETAILS FOR ADDITIONAL INFORMATION.

GENERAL GRADING NOTES

1.

THE SITE MUST BE GRADED AND PAVED SO THAT NO NEW LOW POINTS WITHOUT PROPER DRAINAGE ARE CREATED; NO PONDING SHALL OCCUR ONSITE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE STORMWATER MANAGEMENT PLANS WITHIN BMP FACILITIES OR ON THE SEDIMENT CONTROL PLAN WITHIN SEDIMENT TRAPS OR BASINS.
2.

ALL PAVED SURFACES SHALL BE AT A 1.0% MINIMUM SLOPE. ALL GRASSED AND LANDSCAPED AREAS SHALL BE AT A 2.0% MINIMUM SLOPE. EXCEPTIONS MAY BE MADE ONLY IF APPROVED BY NATURAL RESOURCES DESIGN.
3.

SPOT ELEVATIONS SHOWN AT TIE-IN POINTS WITH EXISTING SURFACES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. PROPOSED ELEVATIONS MAY BE MODIFIED WITH APPROVAL FROM NATURAL RESOURCES DESIGN TO MATCH EXISTING GRADE.
4.

ANY UNSUITABLE IN SITU SOIL OR MATERIAL MUST BE REMOVED OR REMEDIATED PER DIRECTION FROM THE ENGINEER.
5.

REFER TO THE SITE NOTES AND DETAILS FOR ADDITIONAL INFORMATION.

GENERAL SITE CONSTRUCTION NOTES

1.

NATURAL RESOURCES DESIGN IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY, ACCIDENTS, OR SUPERVISION; NATURAL RESOURCES DESIGN IS NOT RESPONSIBLE FOR ANY CONSTRUCTION DAMAGE OR INJURY TO ANY PERSON, VEHICLE, EQUIPMENT, OR PROPERTY ON OR NEAR THE CONSTRUCTION SITE.
2.

NATURAL RESOURCES DESIGN IS NOT RESPONSIBLE FOR CONSTRUCTION SITE SECURITY. THE CONTRACTOR SHALL COORDINATE ALL TEMPORARY SITE SECURITY WITH THE OWNER AS REQUIRED AND APPROPRIATE.
3.

BEFORE COMMENCING CONSTRUCTION, CALL 'MISS UTILITY' TO FIELD MARK UNDERGROUND UTILITIES. FOLLOW MISS UTILITY REQUIREMENTS.
4.

THE EXTENT OF EXISTING STRUCTURES INCLUDING UNDERGROUND FEATURES MAY NOT BE DEPICTED ON THE PLANS.
5.

THE CONTRACTOR MAY MAKE FIELD ADJUSTMENTS TO ACCOMMODATE EXISTING CONDITIONS IF AUTHORIZED BY THE CLIENT, THE CLIENT'S REPRESENTATIVE, OR NATURAL RESOURCES DESIGN.
6.

ALL GENERAL NOTES ARE FOR TYPICAL CONSTRUCTION ACTIVITIES; THEY MAY INCLUDE INFORMATION THAT IS NOT APPLICABLE TO THE SCOPE OF THIS PROJECT.
7.

THE CODES AND STANDARDS SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THEY DO NOT NECESSARILY REPRESENT THE MOST CURRENT OR COMPLETE STANDARDS REQUIRED FOR THE CONSTRUCTION. THE CONTRACTOR MUST REFER TO THE CORRECT, APPLICABLE CODES AND STANDARDS.
8.

ACCESS TO THE PROJECT PROPERTY AND ALL SURROUNDING AREAS MUST BE MAINTAINED FOR ALL EMERGENCY SERVICES, PEDESTRIANS, AND DELIVERIES IF REQUIRED AND AS APPROPRIATE. ACCESS TO FIRE HYDRANTS MUST NOT BE IMPAIRED.
9.

THE CONTRACTOR SHALL RESTORE OR REPLACE ANY ITEMS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION TO ORIGINAL EXTENT, QUALITY AND CONDITION.
10.

REFER TO THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11.

THE CONTRACTOR MUST MAINTAIN A SET OF CONSTRUCTION PLANS WHICH HAVE BEEN MARKED UP TO ACCURATELY CONVEY CONSTRUCTION WHICH HAS DEVIATED FROM THE APPROVED CONSTRUCTION PLANS. THESE PLANS MUST BE PROVIDED TO THE CLIENT, THE CLIENT'S REPRESENTATIVE, OR NATURAL RESOURCES DESIGN PRIOR TO THE PROJECT CLOSEOUT.

GENERAL PAVEMENT NOTES

1.

EXISTING PAVEMENT TO BE REPLACED SHALL AT MINIMUM MATCH THE EXISTING CROSS SECTION.
2.

EXISTING CURB AND/OR GUTTER TO BE REPLACED SHALL MATCH EXISTING TYPE, MATERIAL, AND DIMENSIONS.
3.

SAWCUT EXISTING ASPHALT PAVEMENT 1' FROM EDGE OF NEW CURB AND/OR GUTTER FOR REPLACEMENT.
4.

MILL AND OVERLAY EXISTING ASPHALT PAVEMENT 1' FROM EDGE OF NEW PAVEMENT TO PROVIDE SMOOTH TRANSITION.
5.

MILL AND OVERLAY EXISTING ASPHALT PAVEMENT 10' FROM EITHER SIDE OF UTILITY TRENCHES IN PUBLIC SPACE, EXTENDED TO THE FULL WIDTH OF ANY AFFECTED TRAVEL LANES. THE CONTRACTOR SHALL PROVIDE AN ADDITIVE BID PRICE FOR MILL AND OVERLAY WORK OF THE ENTIRE ROAD WIDTH AS THIS MAY BE REQUIRED BY THE DDOT INSPECTOR.

ABBREVIATIONS

ABND	ABANDONED	MAX	MAXIMUM
AD	AREA DRAIN	ADA	AMERICANS WITH DISABILITIES ACT
WW	WINDOW WELL	MEP	MECHANICAL/ELECTRICAL/PLUMBING
APPROX	APPROXIMATE	MH	MANHOLE
BFP	BACKFLOW PREVENTER	MIN	MINIMUM
BLDG	BUILDING	BRL	BUILDING RESTRICTION LINE
OC	ON CENTER	PROP	PROPOSED
SAN	SANITARY	BSMT	BASEMENT
SCH	SCHEDULE	FFE	FINISHED FLOOR ELEVATION
BW	BOTTOM OF WALL	STM	STORM
CI	CAST IRON	SWR	SEWER
CO	CLEANOUT	TC	TOP OF CURB
CS	COMBINED SEWER	TW	TOP OF WALL
ELEV	ELEVATION	VB	VERTICAL BEND
EX	EXISTING	VCP	VITRIFIED CLAY PIPE
W/	WITH	BM	BENCHMARK
HB	HORIZONTAL BEND	W/M	WATER MAIN



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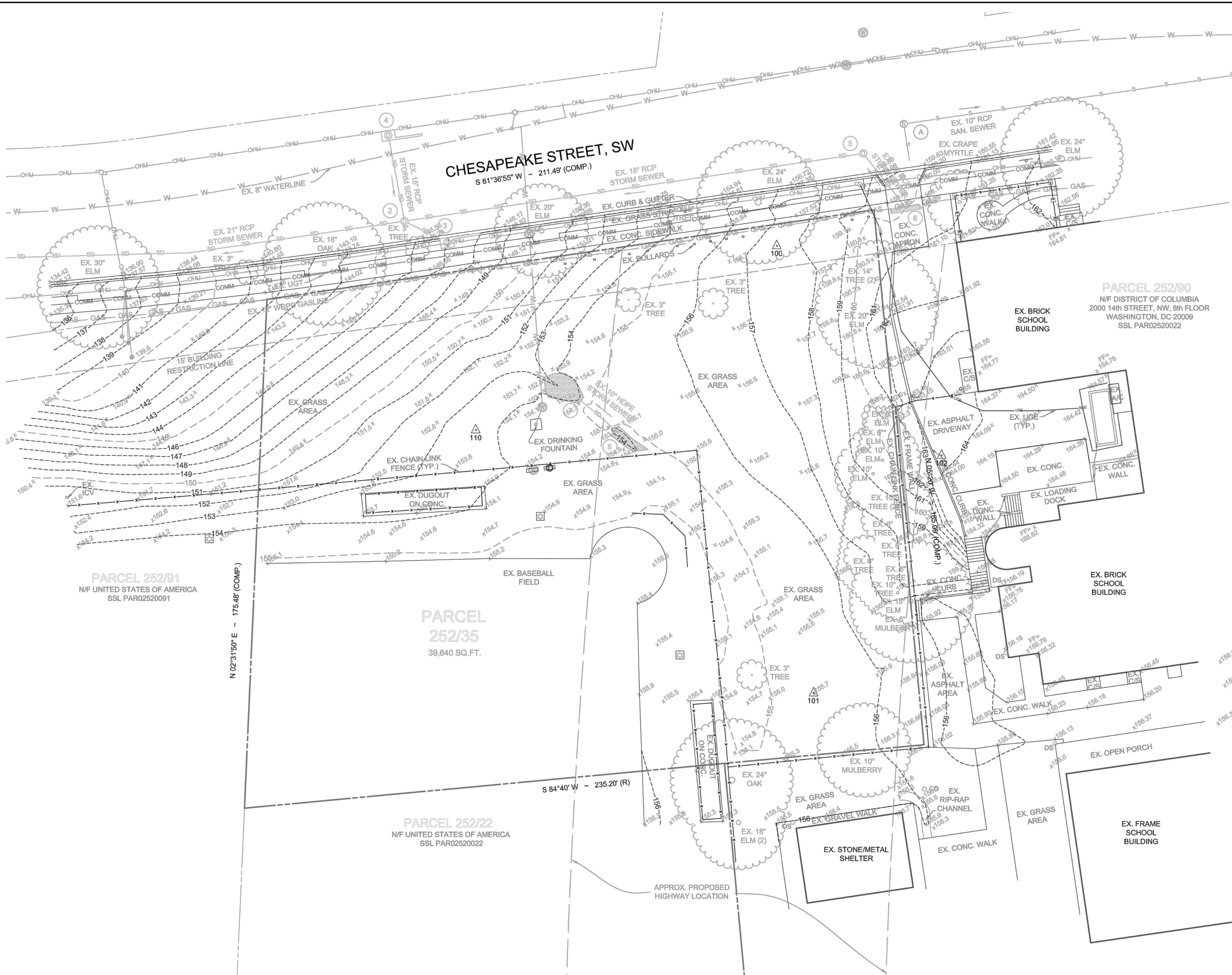
STANDARD NOTES &  
ABBREVIATIONS

Designed: C. SONNE  
Drawn: C. SONNE  
Checked: L. WHEELER

Date: SEPTEMBER 4, 2019  
Revisions:

C001





SEWER TABLE

EX. SAN. MH  
TOP = 159.79  
INV. IN = 151.89 Fr. SOUTH  
INV. OUT = 151.79 To EAST

STORM TABLE

EX. STORM MH  
TOP = 128.35  
INV. IN = 121.90 Fr. 2  
INV. OUT = 121.90 To WEST

EX. STORM MH  
TOP = 145.18  
INV. IN = 141.98 Fr. 3  
INV. IN = 140.43 Fr. 4  
INV. IN = 138.73 Fr. 5  
INV. OUT = 138.53 To 1

EX. CURB INLET  
TOP = 147.00  
FLOOR = 143.1  
(PIPES NOT VISIBLE)

EX. CURB INLET  
TOP = 145.14  
FLOOR = 140.0  
(PIPES NOT VISIBLE)

EX. STORM MH  
TOP = 158.64  
INV. IN = 153.29 Fr. 6  
INV. OUT = 153.04 To 2

EX. TRENCH DRAIN  
TOP = 160.02  
FLOOR = 159.0  
(PIPES NOT VISIBLE)

EX. CULVERT  
INV. OUT = 153.19

EX. CULVERT  
INV. OUT = 153.32

KEY

CONC.	CONCRETE
EX.	EXISTING
O/P	OPEN PORCH
HDPE	HIGH-DENSITY POLYETHYLENE
RCP	REINFORCED CONCRETE PIPE
SQ.FT.	SQUARE FEET
TYP.	TYPICAL
—	SIGN POST
☆	LIGHT POLE
⊥	UTILITY POLE
—	GUY WIRE
⊙	ELECTRIC METER
⊙	SANITARY MAN HOLE
⊙	CLEAN OUT
⊙	STORM MANHOLE
⊙	DOWNSPOUT
⊙	FIRE HYDRANT
⊙	WATER MANHOLE
⊙	WATER METER

NOTES:

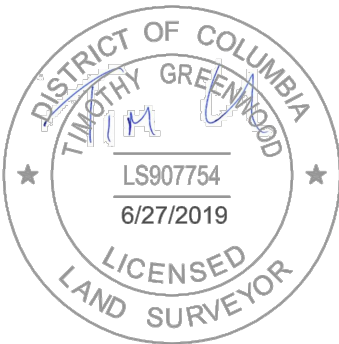
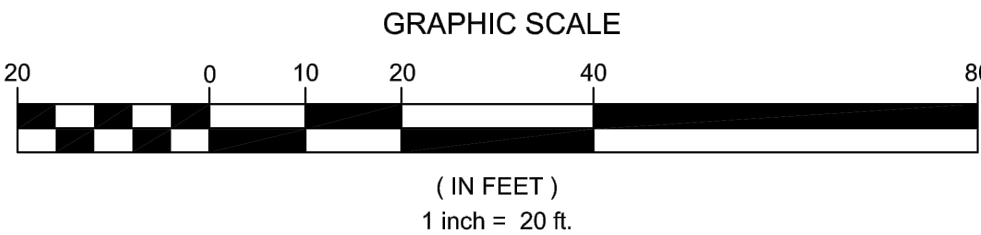
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2000 14th STREET, NW 8th FLOOR  
WASHINGTON, DC 20009
- SSL #: PAR 02520035
- ZONE: RA-1
- NO TITLE REPORT FURNISHED, THUS EASEMENTS AND OTHER RESTRICTIONS ON TITLE MAY NOT BE SHOWN HEREON.
- THE PROPERTY SHOWN HEREON IS SUBJECT TO RESTRICTIONS AND EASEMENTS OF RECORD.
- ANY UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE TAKEN FROM AVAILABLE RECORDS AND ARE APPROXIMATE. MISS UTILITY MUST BE NOTIFIED PRIOR TO COMMENCEMENT OF ANY EXCAVATION ACTIVITY AND A THIRD-PARTY UTILITY MARKOUT AND/OR TEST HOLES MAY BE REQUIRED TO ASCERTAIN ACCURATE LOCATIONS/DEPTHS.
- THE PROPERTY SHOWN HEREON IS LOCATED IN FLOOD ZONE "X" (AREAS OF MINIMAL FLOOD HAZARD) PER FIRM MAP PANEL 1100010059 C, REVISED 9/27/2010.
- TOPOGRAPHIC SURVEY WAS FIELD RUN BY THIS FIRM. VERTICAL DATUM = NAVD '88 PER FIELD GPS STATIC DATA POST-PROCESSED THROUGH NGS OPUS PROGRAM. BEARINGS ARE REFERENCED TO DISTRICT OF COLUMBIA NORTH, AND COORDINATES ARE REFERENCED TO MARYLAND STATE PLANE (MSP) 1983 PER GPS STATIC DATA ALSO POST-PROCESSED THROUGH NGS OPUS PROGRAM.

DC BOUNDARY NOTE

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED FOR CONSTRUCTION LAYOUT OR FOR PROPERTY LINE DETERMINATION/TAKING.

BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM THE DISTRICT OF COLUMBIA SURVEYOR'S OFFICE. PROPERTY LINE DIMENSIONS FROM OFFICIAL RECORDS (R) MAY NOT NECESSARILY AGREE WITH ACTUAL MEASURED (M) DIMENSIONS, AND A "SURVEY TO MARK" PREPARED BY A DISTRICT OF COLUMBIA REGISTERED LAND SURVEYOR AND VERIFIED BY THE OFFICE OF THE SURVEYOR MAY BE REQUIRED TO ESTABLISH THE FINAL BOUNDARY LOCATION OF THIS PROPERTY.

RECORD BOUNDARY DATA FOR RECORD LOTS IS TAKEN FROM RECORDED SUBDIVISION PLATS. RECORD BOUNDARY DATA FOR ASSESSMENT & TAXATION (A&T) LOTS IS TAKEN FROM OFFICE OF TAXATION AND REVENUE RECORDS.

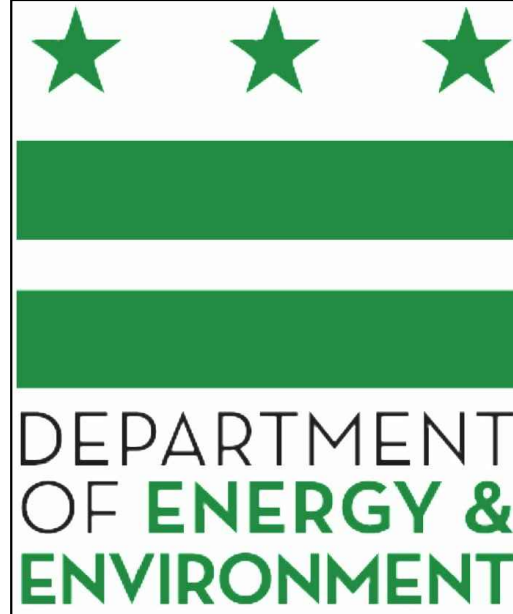


PLAT SHOWING  
TOPOGRAPHIC SURVEY  
ON A PORTION OF  
**PARCEL 252/35**  
(SUBDIVISION BOOK 158, PAGE 40)  
DISTRICT OF COLUMBIA

JUNE 27th, 2019  
SCALE: 1"=20'

JOB #: 19-044 GREBLE  
SHEET : 1 OF 1

**SUSTAINABLE**  
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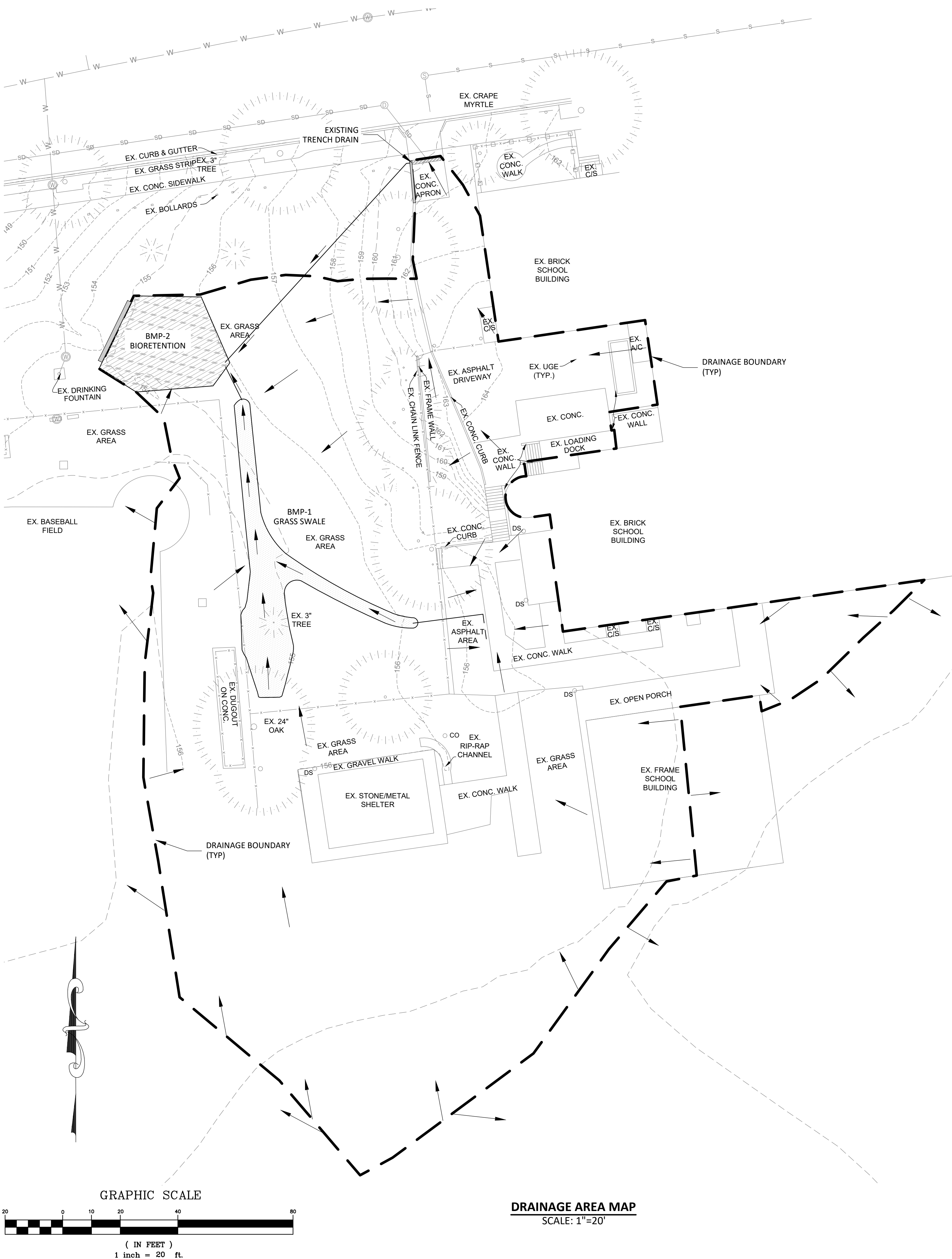
EXISTING CONDITIONS

Designed: C. SONNE  
Drawn: C. SONNE  
Checked: L. WHEELER

Date: SEPTEMBER 4, 2019  
Revisions:

C100





BMP Scorecard

Fort Greble Community Center

BMP Description	CDA (sf)				SWRv	Volume	Runoff Depth Captured	Pollutant Removal Rates		
	Impervious	Turf	BMP	Total	Required (cf)	Provided (cf)	per Imperv Acre	P	N	TSS
BMP-1 Grass Swale	7390	31430	1250	40,070	480	480	0.7			
BMP-2 Enhanced Bioretention Basin	11,640	44,620	1,070	57,330	1,500	1,800	1.7	78%	66%	83%

The SWRv Required for the bioretention basin has been reduced by the treatment volume provided by the grass swale



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DPR II - 4 PARKS  
STORMWATER  
IMPROVEMENTS

FORT GREBLE  
RECREATION CENTER  
MARTIN LUTHER KING JR. AVE. SW  
& ELMIRA ST. SW  
WASHINGTON, DC

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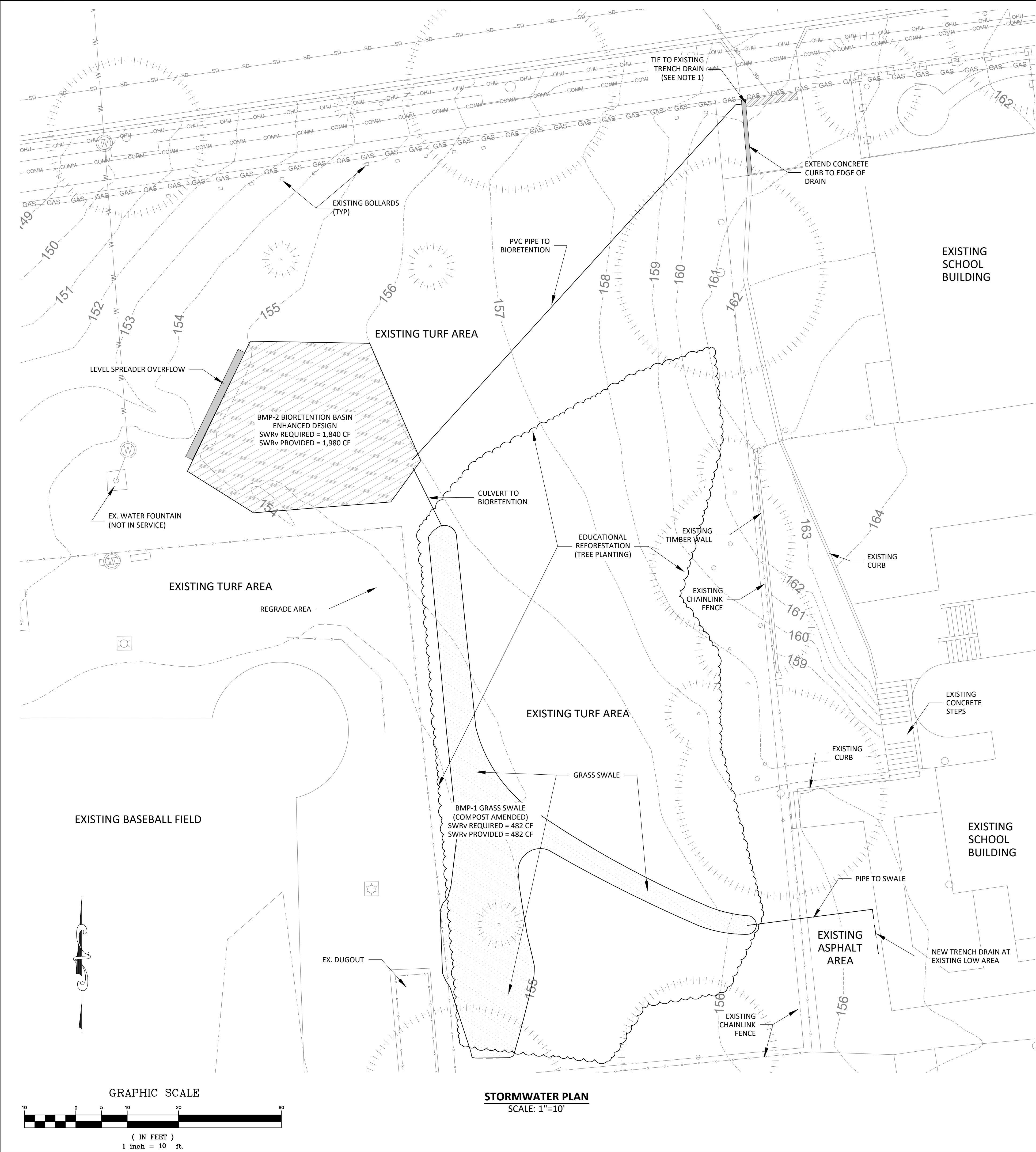
DRAINAGE AREAS

Designed: C. SONNE  
Drawn: C. SONNE  
Checked: L. WHEELER

Date: SEPTEMBER 4, 2019  
Revisions:

C300





- NOTES:**
1. EXISTING TRENCH DRAIN TO BE MODIFIED TO CONVEY WATER QUALITY DESIGN STORM TO BIORETENTION BASIN. LARGER STORMS SHALL DISCHARGE DIRECTLY INTO THE EXISTING STORMWATER PIPING SYSTEM/
  2. BIORETENTION BASIN SHALL BE PROVIDED WITH A SUMP AND AN UNDERDRAIN. IN ACCORDANCE WITH DOE STANDARDS FOR ENHANCED DESIGNS. UNDERDRAIN SHALL DISCHARGE TO DAYLIGHT ONTO THE EXISTING GRASS SLOPE BELOW THE BASIN.



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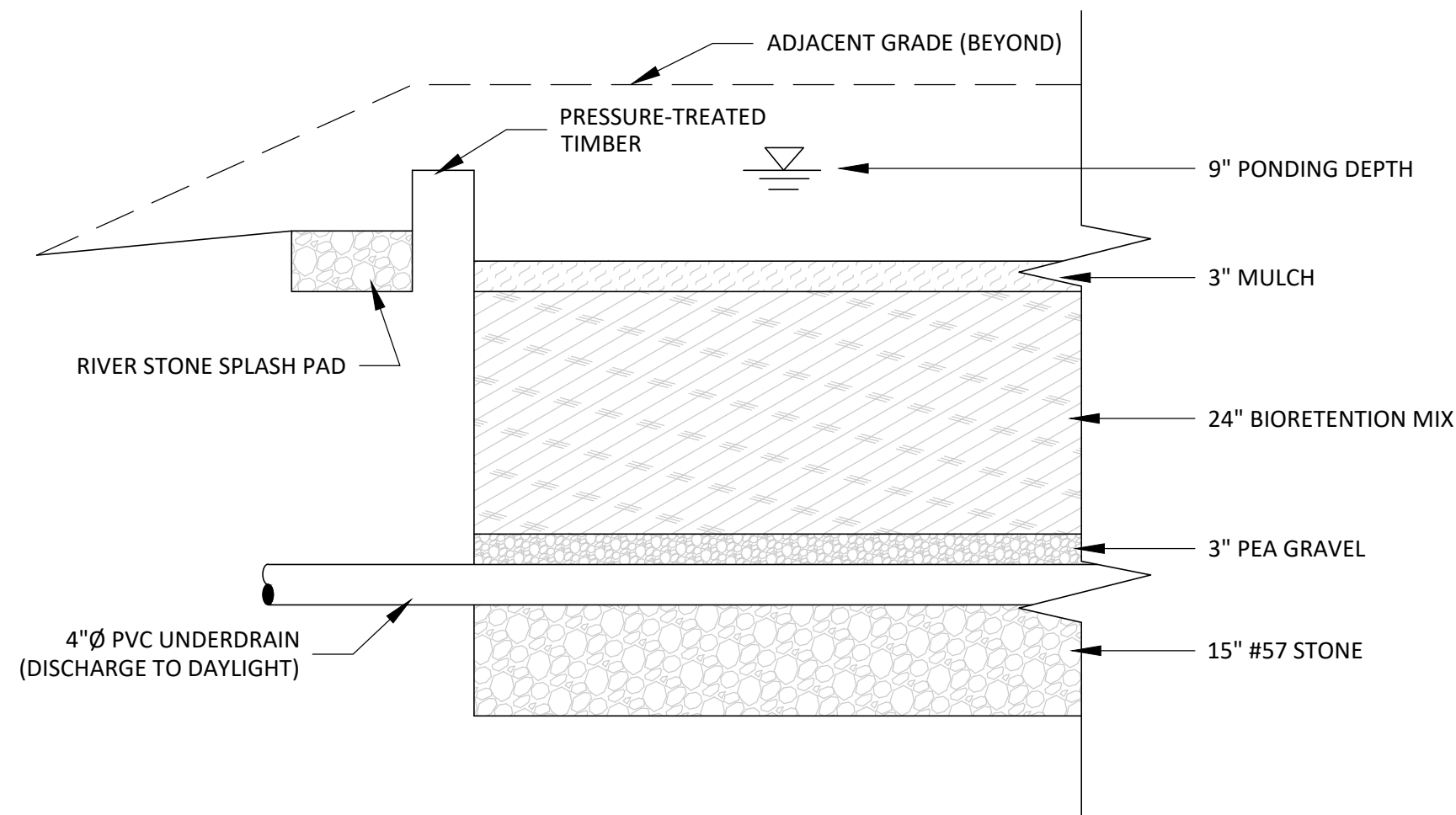
**STORMWATER  
MANAGEMENT PLAN**

Designed: C. SONNE  
Drawn: C. SONNE  
Checked: L. WHEELER

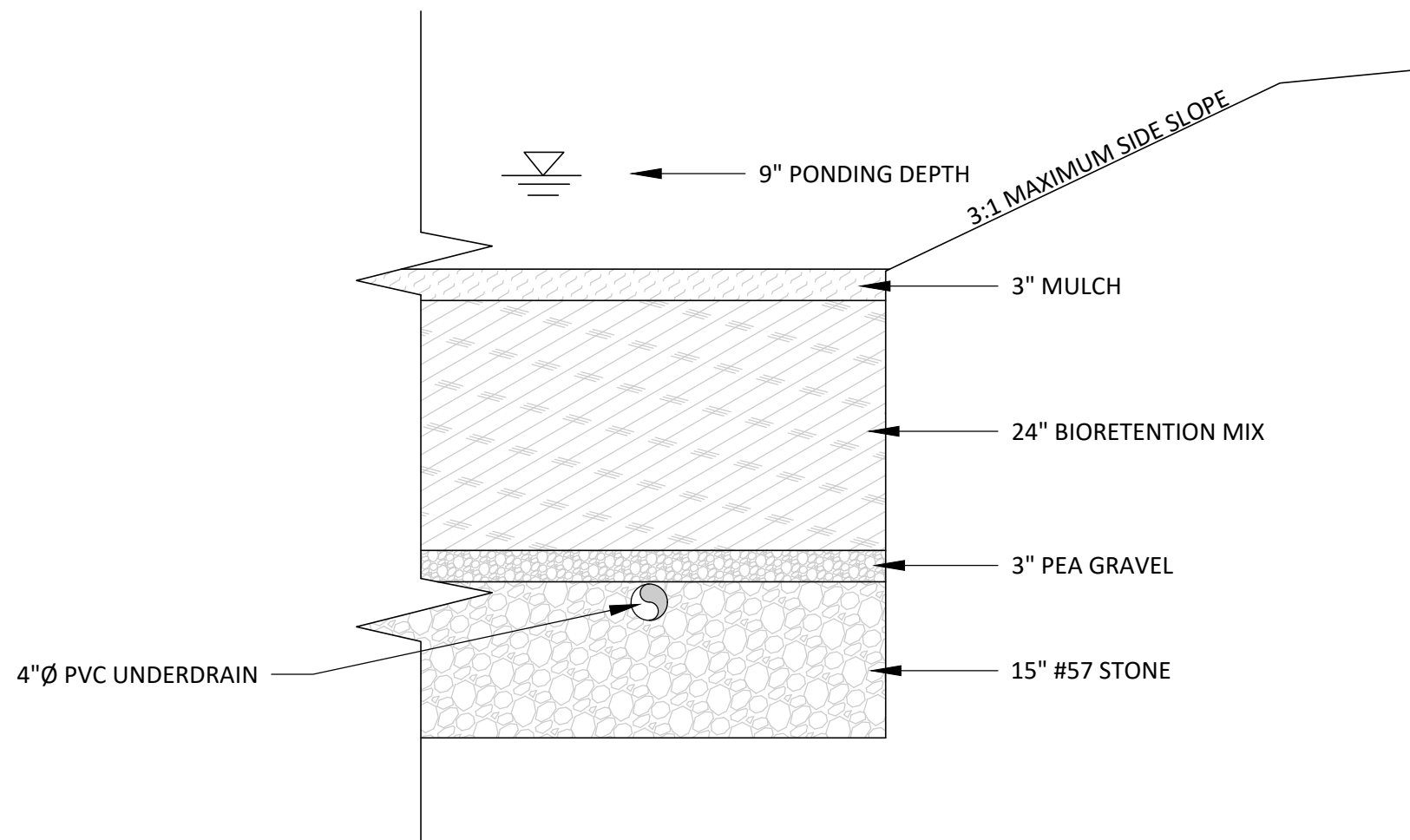
Date: SEPTEMBER 4, 2019  
Revisions:

**C310**

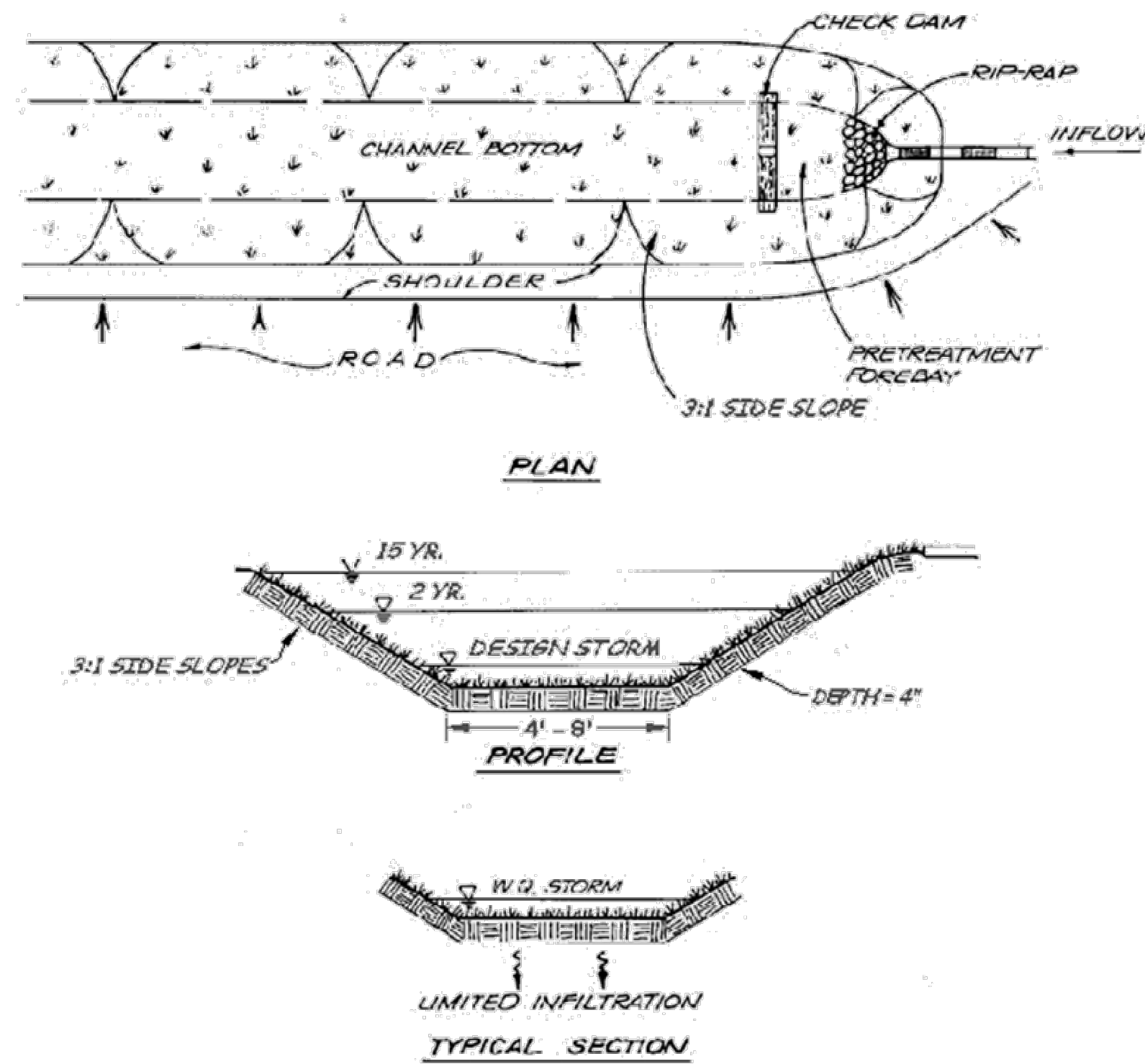




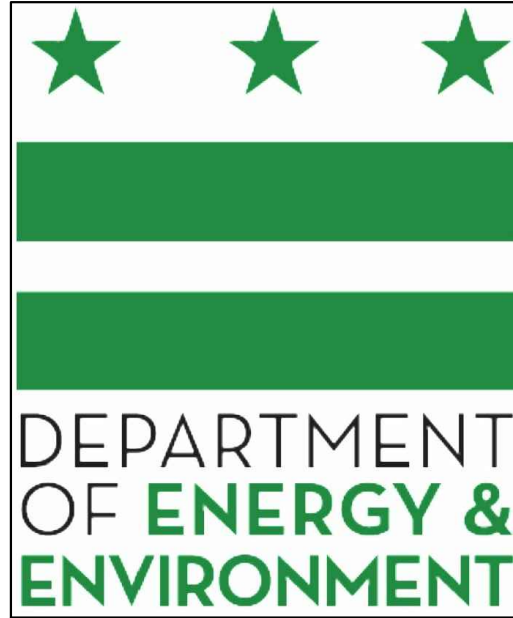
**BIORETENTION BASIN - LEVEL SPREADER OVERFLOW SECTION**  
SCALE:  $\frac{3}{4}$ "=1"



**BIORETENTION BASIN - TYPICAL SECTION**  
SCALE:  $\frac{3}{4}$ "=1"



**GRASS CHANNEL - TYPICAL DETAILS**  
SCALE: NONE



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## DPR II - 4 PARKS STORMWATER IMPROVEMENTS

### FORT GREBLE RECREATION CENTER

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## STORMWATER DETAILS

Designed: C. SONNE  
Drawn: C. SONNE  
Checked: L. WHEELER

Date: SEPTEMBER 4, 2019  
Revisions:

# C330